IN THE SPECIFICATION:

After the Title of the Invention and before line 1, insert the following new heading and paragraph:

--Cross-Reference to Related Applications

This application is a U.S. national state application of copending International Application Ser. No. PCT/JP00/06342, filed September 18, 2000 claiming a priority date of September 17, 1999, and published in a non-English language.--

IN THE TITLE:

The Title has been amended as follows:

APPARATUS FOR IMAGING FLUORESCENT ~~PARTICLE~~ PARTICLES ~~IMAGING DEVICE~~

IN THE SPECIFICATION:

Paragraph beginning at line 14 of page 1 has been amended as follows:

In the field of medical treatment, ~~since before,~~ blood platelet derivatives and red blood cell derivatives ~~are being~~ have been manufactured by extracting blood platelets and red blood cells from blood. These blood platelet derivatives and red blood cell derivatives are each used for blood transfusions, and it is not desirable to have white blood cells mixed therein. For this reason, it is important to know the number of white blood cells that are mixed in with such derivatives. Conventionally, a sample of blood platelet derivative dyed with a fluorescent dye is placed on a slide glass plate referred to as a Nageotte chamber and irradiated with illuminating light and the number of white blood cells is counted using a microscope. Specifically, the number of white blood cells in a 50 microliter sample is counted and converted to the number of white blood cells in the whole bag. This is a time-consuming task that has to be performed by an experienced person, and is extremely inefficient and tiring.

Paragraph beginning at line 5 of page 2 has been amended as follows:

The means disclosed here are very useful when used for items such as blood platelet derivatives, blood plasma derivatives, and spinal fluid that have a high transmittance to exciting light. ~~Also,~~ Furthermore, in the case of red blood cell derivatives, centrifugal force is used to separate red blood cells and white blood cells, and the removal rate is low, at around 10%, leaving a large quantity of white blood cells mixed in. In this case, the red blood cell derivative is diluted and the reduced number of white blood cells in a micro-sample is counted and, taking the dilution ratio into consideration, converted to a whole-bag white cell count. In this case the disclosed invention is useful because, even though it is a red blood cell derivative, there is a high transmittance to exciting light.

Paragraph beginning at line 19 of page 2 has been amended as follows:

However, there is no need for dilution in the case of red blood cell ~~derivative~~ derivatives in which there is a low count of entrained white blood cells. This exhibits a low transmittance to exciting light, and the white blood cells collecting at the bottom are not uniformly irradiated by the exciting light, making it difficult to count them correctly.

Heading at line 31 of page 2 has been amended as follows:

~~Disclosure of Invention~~ Summary of the Invention

Paragraph beginning at line 9 of page 4 has been amended as follows:

Figure 21 is a view showing ~~an~~ a schematic arrangement of a fluorescent particle imaging device.

Heading at line 14 of page 4 has been amended as follows:

~~Best Mode for Carrying out the Invention~~ Detailed description of the Preferred Embodiment

Paragraph beginning at line 15 of page 4 has been amended as follows:

The invention will be explained in detail below with reference to the embodiment as shown in the Figures.

Paragraph beginning at line 17 of page 4 has been amended as follow:

Figures 1 and 2 show an embodiment of the present invention. In the drawings, reference numeral 1 denotes a laser light source such as a YAG laser that produces a green-wavelength laser beam. A switchable mirror 20 removable from the optical path by a disposed on the optical path of the

laser beam from the laser light source 1. When the switchable mirror 20 is removed from the optical path, the laser beam from the laser light source 1 falls incident on, and is diffused by, a member having a diffusing function such as a diffuser 2 constituted by ground glass or the like, and irradiates, from the side, the bottom portion 3' of an imaging container 3, the top portion 3a of which is covered by a cover 4. The imaging container 3 also has an interior space 3b and an exterior surface 3C, and the bottom part 3' has a side wall 3d and a bottom wall 3e. Fluorescent particles are collected at the bottom of the imaging container 3. The irradiation of the fluorescent particles with the laser beam causes fluorescence to occur. An image of the fluorescent particles irradiated by the laser beam passes through an objective lens 6, is reflected by a mirror 7, and after passing through a barrier filter 8 that transmits light of a prescribed frequency band, is picked up by a CCD camera 9.

Paragraph beginning at line 3 of page 5 has been amended as follows:

As shown, when the switchable mirror 20 is placed in the optical path, the exciting light from the laser light source 1 is reflected by the switchable mirror 20 and a mirror 21 and then diffused by a diffuser 22 similar to the diffuser

2 to irradiate an entry surface A of the imaging container corresponding to the bottom of the imaging container 3 from below. The images of the fluorescent particles irradiated by the laser beam pass through the objective lens 6, are reflected by the mirror 7, and after passing through the barrier filter 8 that transmits light of the prescribed frequency band, are picked up by the CCD camera 9.

Paragraph beginning at line 29 of page 5 has been amended as follows:

The imaging container 3 is integrally formed of transparent polystyrene resin, glass or acrylic resin, but preferably polystyrene resin. ~~Blood~~ A blood platelet derivative, for example, or a diluted or non-diluted red blood cell derivative or the like can be placed in the imaging container 3. A chemical solution (Triton X (trademark)) for dissolving the cytoplasm of platelets and white blood cells, and a fluorescent dye (propidium iodide) to dye the cell nucleus of white blood cells, are also ~~put~~ placed into the imaging container 3. A centrifugal separator (not shown) is then used to bring the white blood cell nuclei to the bottom of the container 3. The application of a prescribed gravity G causes all white blood cell nuclei to be collected at the bottom 3′ of the imaging container 3.

Paragraph beginning at line 8 of page 6 has been amended as follows:

In such an arrangement, when a substance having a high transmittance to exciting light, such as a blood platelet derivative or a times-hundred dilution of a red blood cell derivative, is placed in the imaging container 3, the switchable mirror 20 is removed from the optical path and the laser light source 1 is switched on to irradiate only an entry surface B of the imaging container 3 corresponding to the portion near the bottom of the imaging container 3 with exciting light from the side. The white blood cells dyed with a fluorescent dye are collected at the bottom of the imaging container 3. The dyed nuclei of the white blood cells are therefore excited by the incident laser beam, producing the fluorescence at around 600 nm. The fluorescent light passes from the bottom of the container through the objective lens 6, the mirror 7 and the barrier filter 8 and is picked up by the CCD camera 9. The barrier filter 8 only transmits light in the fluorescence wavelength band, making it possible to block disturbing-wavelength light.

Heading at line 5 of page 8 has been deleted as follows:

~~Industrial Applicability~~

Paragraph beginning at line 6 of page 8 has been amended as follows:

As is clear from the foregoing explanation, in accordance with the present invention, for a substance having a high transmittance to exciting light, only the portion near the bottom of the container ~~are~~ is irradiated from the side with the exciting light, and for a substance having a low transmittance to exciting light, the bottom of the container is irradiated from the bottom with the exciting light, so that even if the transmittance of the measurement target substance to exciting light is different, illumination corresponding to the transmittance can be selected, enabling the fluorescent particles to be counted correctly.